

CLAIMS

What is claimed is:

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1. A method for forecasting the direction in which the price of an asset will move, said method comprising:

(a) identifying a group of exogenous variables that are likely to influence observed prices of an asset;

5 (b) processing historical data for values of said exogenous variables and historical data for the observed prices of the asset over a time period to obtain a formula for calculating price estimates for the asset as a function of the exogenous variables;

10 (c) calculating the formula using an input set of observed values for the exogenous variables at given point in time, so as to obtain a price estimate for the asset at said given point in time;

(d) determining a similarity measure by comparing the price estimate for the asset at the given point in time to the observed price for the asset at the given point in time; and

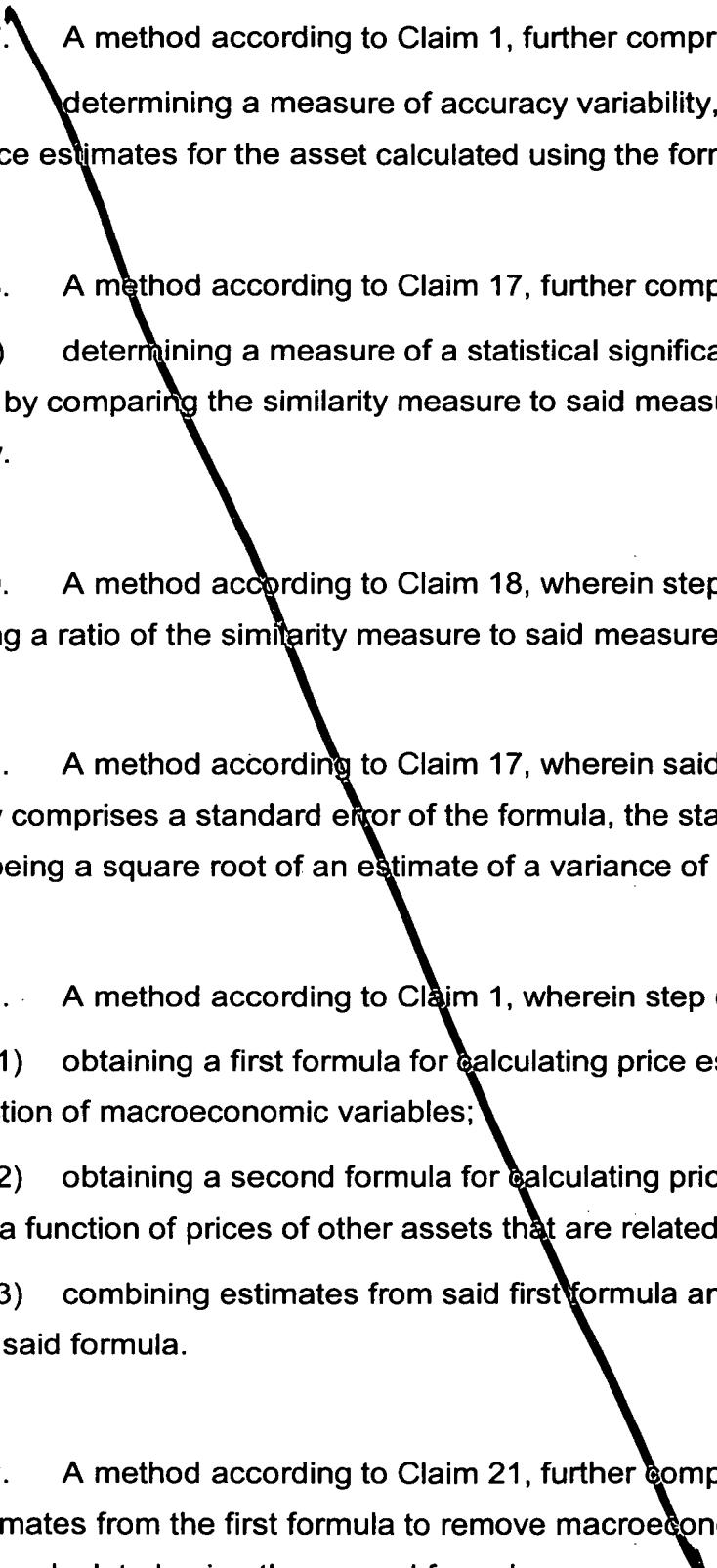
15 (e) forecasting a direction in which the observed price of the asset will move based on the similarity measure.

2. A method according to Claim 1, wherein the asset is a stock issued by a company doing business in a particular industry, and wherein a substantial number of the exogenous variables reflect prices of stocks issued by other companies that are also doing business in said particular industry.

3. A method according to Claim 1, wherein said exogenous variables include macroeconomic variables.

4. A method according to Claim 1, wherein at least some of said exogenous variables are identified in step (a) by performing stepwise regression over a number of potential exogenous variables and selecting the potential exogenous variables that provide a best fit.
5. A method according to Claim 1, wherein at least some of said exogenous variables are identified in step (a) by modeling over a number of potential exogenous variables and selecting a set of the potential exogenous variables that tend to maximize predictive power of said modeling.
6. A method according to Claim 1, wherein at least some of said exogenous variables are identified in step (a) by performing a statistical clustering technique.
7. A method according to Claim 1, wherein said given point in time is after said time period.
8. A method according to Claim 7, wherein said given point in time is approximately 30 days after said time period ends.
9. A method according to Claim 1, wherein the time period is determined using a stepwise approach.
10. A method according to Claim 1, wherein the asset comprises a share of stock issued by a corporation, and wherein the time period is determined based on changes affecting the corporation.

11. A method according to Claim 7, wherein a duration of the time period is selected so as to maximize a predictive power of the formula over the time period.
12. A method according to Claim 1, wherein said processing in step (b) comprises performing a statistical regression technique.
13. A method according to Claim 1, wherein said processing in step (b) comprises performing a neural network technique.
14. A method according to Claim 1, wherein step (d) comprises a step of:
- (d1) determining a difference between the price estimate for the asset at the given point in time and the observed price for the asset at the given point in time.
15. A method according to Claim 14, wherein step (d) further comprises a step of:
- (d2) calculating a ratio of the difference determined in step (d1) to the price estimate for the asset at said given point in time.
16. A method according to Claim 1, wherein step (d) comprises determining a ratio of the price estimate for the asset at the given point in time to the observed price for the asset at the given point in time.

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17. A method according to Claim 1, further comprising a step of:
 - (f) determining a measure of accuracy variability, over the time period, of the price estimates for the asset calculated using the formula.
18. A method according to Claim 17, further comprising a step of:
 - (g) determining a measure of a statistical significance of the similarity measure by comparing the similarity measure to said measure of accuracy variability.
19. A method according to Claim 18, wherein step (g) comprises calculating a ratio of the similarity measure to said measure of accuracy variability.
20. A method according to Claim 17, wherein said measure of accuracy variability comprises a standard error of the formula, the standard error of the formula being a square root of an estimate of a variance of errors of the formula.
21. A method according to Claim 1, wherein step (b) comprises steps of:
 - (b1) obtaining a first formula for calculating price estimates for the asset as a function of macroeconomic variables;
 - (b2) obtaining a second formula for calculating price estimates for the asset as a function of prices of other assets that are related to the asset; and
 - (b3) combining estimates from said first formula and said second formula to obtain said formula.
22. A method according to Claim 21, further comprising a step of using price estimates from the first formula to remove macroeconomic effects from price estimates calculated using the second formula.

23. A method according to Claim 1, further comprising a step of:
(f) repeating steps (c) and (d) for plural points in time after the time period ends in order to obtain plural similarity measures, and
wherein the forecasting of step (e) is based on said plural similarity
measures.

24. A method according to Claim 23, further comprising a step of:
(g) calculating a central tendency of the plural similarity measures, and
wherein the forecasting of step (e) is based on said central tendency.

25. A method according to Claim 23, further comprising a step of:
(g) calculating a weighted average of the plural similarity measures, and
wherein the forecasting of step (e) is based on said weighted average.

26. A method according to Claim 1, further comprising a step of:
(f) repeating steps (b), (c) and (d) using different time periods, and
wherein the forecasting in step (e) is based on the similarity measures determined by using said different time periods.

27. A method according to Claim 26, wherein said different time periods have approximately a same duration.

28. A method according to Claim 27, wherein said different time periods include a time period ending approximately 30 days prior to said given point in time and a time period ending approximately 90 days prior to said given point in time.

29. A method according to Claim 26, further comprising a step of:
(g) calculating a ratio of the similarity measure determined by using one of the time periods to the similarity measure determined by using another of the time periods.

30. A method according to Claim 1, wherein said exogenous variables include prices of other assets that are similar to the asset.

31. An apparatus for forecasting the direction in which the price of an asset will move, said apparatus comprising:

- (a) means for identifying a group of exogenous variables that are likely to influence observed prices of an asset;
- 5 (b) means for processing historical data for values of said exogenous variables and historical data for the observed prices of the asset over a time period to obtain a formula for calculating price estimates for the asset as a function of the exogenous variables;
- (c) means for calculating the formula using an input set of observed values for the exogenous variables at given point in time, so as to obtain a price estimate for the asset at said given point in time;
- 10 (d) means for determining a similarity measure by comparing the price estimate for the asset at the given point in time to the observed price for the asset at the given point in time; and
- 15 (e) means for forecasting a direction in which the observed price of the asset will move based on the similarity measure.

32. A computer-readable medium storing computer-executable process steps for forecasting the direction in which the price of an asset will move, said process steps comprising steps to:

- (a) identify a group of exogenous variables that are likely to influence
5 observed prices of an asset;
- (b) process historical data for values of said exogenous variables and historical data for the observed prices of the asset over a time period to obtain a formula for calculating price estimates for the asset as a function of the exogenous variables;
- 10 (c) calculate the formula using an input set of observed values for the exogenous variables at given point in time, so as to obtain a price estimate for the asset at said given point in time;
- 15 (d) determine a similarity measure by comparing the price estimate for the asset at the given point in time to the observed price for the asset at the given point in time; and
- (e) forecast a direction in which the observed price of the asset will move based on the similarity measure.